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Volkmar Menger

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6965

23416

7590

09/02/2008

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EXAMINER

SMITH, JENNIFER A

ART UNIT

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## **DETAILED ACTION**

### ***Status of Application***

Claims 1-2 and 4-5 are rejected.

Claims have not been amended.

### ***Claim Rejections - 35 USC § 103***

Claims 1-2 and 4-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mueller et al. US Patent No. 4,480,124 in view of Menger et al. US Patent No. 6,713,422 B1.

Claims 1-2 and 4-5 are rejected on the same grounds as stated in the Office Action of December 28, 2007.

### ***Response to Arguments***

Applicant's arguments filed 08/01/2008 have been fully considered but they are not persuasive.

Applicant argues that the Mueller reference cannot be modified by the Menger reference as suggested (replacing hydrogen with water steam) because the proposed modification would render Mueller unsatisfactory for its intended purpose because the intended purpose of Mueller of obtaining a low color number in the purification of

Art Unit: 1793

polytetramethylene ether glycol could no longer be achieved. The combination of the Mueller reference with the Menger reference would not make the process inoperable. Menger teaches cleaning a deactivated catalyst with steam [See Claim 1] and the function of the catalyst for hydrogenation is not negatively affected by the use of steam (in a separate and unrelated cleaning and purification process) to purify the deactivated catalyst. Evidence to this can be seen in the examples of the Menger et al. reference.

Applicant argues unexpected results. Due to the absence of tests comparing Applicant's process with those of the closest prior art, it is concluded that Applicant's assertions of unexpected results constitute mere argument.

Applicant argues the hindsight reasoning has been used in the rejection of claims. One of ordinary skill in the art would be motivated at the time of invention to modify the process in Mueller et al. in view of Menger et al. because simple substitution of one known free flowing gas (hydrogen gas) for another, more readily available gas, (steam) would achieve the predictable result of enhancing the purification of the deactivated catalyst and allowing for a quick and inexpensive change of catalyst and a worked-up catalyst which is largely free of product residues can readily be handled in subsequent disposal. [See Column 1, lines 41-45 of Menger et al.] Additionally the higher temperature in claim 1 which is not taught in Mueller is due to the fact that steam must be maintained above 100°C.

Applicant argues that the Mueller reference is directed to an industrial process for the production of PTHF and the Menger reference suggests a process for working up at least a partially deactivated polymerization catalyst and they do not suggest features that can reasonably be considered to correspond to a working up of the metal hydrogenation catalysts. In response to applicant's argument it is maintained that the Mueller and Menger references are considered to be in the field of applicant's endeavor and reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention (namely the cleaning of a deactivated hydrogenation catalyst). See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, Mueller discloses a process for the use of a dehydrogenation catalyst and Menger teaches the purification of polytetramethylene ether glycol *in the presence of a hydrogen catalyst*. One would have been motivated to combine the subjects taught by the two references because the catalyst used in color number hydrogenation (in the Mueller reference) would be deactivated or partially deactivated in the process. The purification process taught in the Menger reference would predictably yield a catalyst free of pollutants [See Menger, Column 1, line 45].

### ***Conclusion***

Claims 1-2 and 4-5 remain rejected.

Art Unit: 1793

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JENNIFER A. SMITH whose telephone number is (571)270-3599. The examiner can normally be reached on Monday - Friday, 8:30am to 5:00pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorgengo can be reached on (571)272-1233. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Roy King/

Supervisory Patent Examiner, Art  
Unit 1793

Jennifer Ann Smith  
Art Unit 1793  
August 28, 2008

JS

Application/Control Number: 10/542,574  
Art Unit: 1793

Page 6